

Abstract

An optical system for providing a useful light beam, having one or more optical components (3, 4, 5) which attenuate a useful light fraction with a first linear polarization state less strongly than a useful light fraction with a second linear polarization state different from the first state. A compensation unit is provided which includes a transmission plate (9) that is introduced into the useful light beam path (7) inclined (β) to the optical axis, and attenuates the useful light fraction with the first linear polarization state more strongly than that with the second linear polarization state. As a result, the imbalance, caused by the system without a compensation unit, of the two useful light fractions can be compensated completely or in any case partially. The optical system is used, for example, in illuminating systems and projection objectives of microlithographic projection exposure apparatuses.